LETTERS

Book Was a "Rough Draft" of a Much-Needed Capability

Dear Sir:

We appreciate LTC Eden's effort in reviewing our book, *Air-Mech Strike: 3-Dimensional Phalanx* in the March-April edition of *ARMOR.* Being simple soldiers and not English majors, we did the best we could in a very short period of time, and we apologize to readers for any shortcomings in style and editing. LTC Eden got the important point. Air mechanization is an approach to land warfare that we have ignored too long. While we may not have the ultimate solution for equipping, organizing, and fighting the air-mech team, we did collect what we determined to be the best ideas available on the topic today. And we did demonstrate how we could achieve this capability in the short run.

At the time we wrote the book, many issues regarding the interim force were still unsettled and there may still be enough flexibility to influence the interim force approaches to the 82nd and 101st Airborne Divisions. We definitely would like to influence decisions about the "objective force" and the Future Combat System (FCS). We felt it was important to gather the air-mech history and background in one book. We looked at how other armies have approached the concept, and we have laid out some thoughts on how to proceed in the near term.

Much has happened since we wrote the book. The Army has been experimenting with air mechanization in its futures war games. Objective Force brigades and divisions in the Army's up-coming VIGILANT WARRIORS 01 exercise, set in 2015, have air mechanized capabilities. They will deploy rapidly by C-17 and wide-bodied jets as well as high-speed, shallow-draft shipping and vessels. The Future Combat System will have air-mech capabilities and will conduct vertical envelopments with brigade and division-sized forces. There is a growing acceptance of the fundamental reason for air mechanization. Future interventions will begin with offensive operations and operational maneuver from a continent away. Entry will be difficult, but it will need to be rapid and not limited to predictable points of entry and terrain choke points. Those in the Army and outside who have war-gamed and analyzed the tactics and concepts of employment of the Interim Brigade Combat Teams in a Kosovo terrain scenario know the challenges of limited narrow valley approaches. We believe we really have no choice but to pursue this capability if we are to remain a relevant force.

We know that there will be challenges. Armored warfare also faced challenges. The officers of Armor branch solved those over time. There are many who will point to the cost and dangers of air-mech operations. If, in the late 1930s the U.S. had conducted a study of tank attacks against integrated anti-tank defenses, we would never have formed armored divisions. Air-mech is nothing more than continuing the lead of the maneuver warfare prophets by integrating vertical envelopments into large-scale maneuver that includes heavy ground maneuver forces.

We encourage the readers of *ARMOR* to watch for a series of articles [in *Army* in April, May, June; the March *Armed Forces Journal International* ("Full Spectrum Transformation - Now"); and the April *Military Review*] by two members of our group, BG (Ret.) Wass de Czege and BG (Ret.) David Grange. BG Wass de Czege writes about the future challenges of power-projection, offensive combat, and force protection. This trilogy discusses operational maneuver from strategic distances and the challenges of non-linear operations. He places air-mech operations in a larger joint and operational context. BG Grange describes how the Army can have an air-mech capability now using existing equipment to overcome the tyranny of restrictive terrain like he faced recently as commander of the 1st Infantry Division preparing to invade Kosovo. Further, in the April issue of *Military Review,* BG Grange explains how a 3D air/ground maneuver force can combine the synergy of combat systems to provide capabilities to commanders.

A key point of our book was to advocate. We believe that the U.S. Army needs to begin working on air-mech concepts soon. And we believe that an important transformation goal should be to the ability to insert one air mechanized division to operational depths in one night by 2020. Our views will mature as more join in the discussion of whether, when and how we pursue this goal. There will be other army priorities, but air mechanization will never be a reality until a consensus forms within the Army itself. Armor branch emerged during the 1930s. This was a period of miniscule army budgets, but concerned army personnel made enough conceptual progress that when the funds became available, the leaders of Army had a blueprint. We don't claim to have the blueprint. We have a rough draft (and a very rough draft, according to your reviewer). We need your help to improve it. Better yet, the Army itself needs to improve on it.

BG DAVID L. GRANGE, U.S. Army, Ret.
BG HUBA WASS DE CZEGE, U.S. Army, Ret.
LTC RICHARD D. LIEBERT, USAR
SSG JOHN RICHARDS, U.S. Army
LT MICHAEL L. SPARKS, USAR
MAJ CHARLES A. JARNOT, U.S. Army
LTC LESTER W. GRAU, U.S. Army, Ret.
JACOB W. KIPP, Professor and Sr. Analyst
EMERY E. NELSON, Warfighting Concepts Analyst
CAROL A. MURPHY, Computer Specialist

U.S. Troops Were Also Attacked Where GM 100 Met Its Fate

Dear Sir:

CPT Luedeke's article ("Death on the Highway: The Destruction of *Groupement Mobile 100*," Jan-Feb 2001 *ARMOR – Ed.*) hit home on a very personal basis with this old tanker. I had the good fortune of participating in the history honors program in my junior and senior years at Western Michigan University, a program requiring an honors thesis to graduate. The topic of my paper was "Vietnam....America's Future 'Street Without Joy'?" During my research in 1963-64, I had the distinct honor of interviewing and befriending Bernard B. Fall, renowned author of perhaps the most descriptive and accurate tomes on the French Indochina War: *Street Without Joy; Hell in a Very Small Place; Last Reflections on a War*, and others. Then a professor of International Studies at Howard University, Mr. Fall kindly afforded this fledgling historian some gritty, eye-opening visions of the war in Vietnam, what was and was to be. My thesis was a critical historical analysis of French strategy and tactics, especially as they involved small unit actions and the evolving Maoist approach to 'Revolutionary War' or guerrilla warfare. (Bernard Fall was killed on QL 1 in February, 1967.)

Little did I know that some three years hence, I would find myself explaining the tall, stark, white obelisks along what was known in 1967 as QL 19, dedicated to some unit called *Groupement Mobile 100,* to my tank crews. As I read the bronze plaques and described to them the actions in that place, the hair on my neck literally stood on end. Here, I was responsible for the relative security of this road on the same bloody ground where GM 100 bled its last. My tank platoon, 1st Platoon, A Company, 1st Battalion, 69th Armor, had been given the mission of securing the section of National Highway 19 between Mang Giang (Yang) pass (or old PK 22) and what was known as Bridge Check Point 25, beginning 7 December, as a lead-on force for the ultimate displacement of A Company and the battalion forward element to LZ Schuller and An Khe respectively. We provided daily strong points and reaction forces in support of the 60 or so daily convoys running between Pleiku in the Central Highlands and the coastal port of Qui Nhon. We called it 'ambush alley,' because the Viet Cong and North Vietnamese Army forces who cohabited the area with us chose to impede the progress of at least one convoy daily. The importance and need for our mission was constantly reinforced to my crews as they passed by the shattered hulks of the M24 tank platoon from GM 100.

The 95B Battalion of the NVA 95th Regiment attempted to repeat the events of 1954 with an attack on a U.S. Ordnance convoy on 10 April 1968, at almost the same location where GM 100 was destroyed. At that point in time, the entire force of A Company, with two additional tank companies within calling distance, was available to react to any road contingency in the area, indeed a far cry from the poor state of affairs facing GM 100, without air or artillery support, or any form of ground reinforcement. As A Company XO, I couldn't help but again reflect on those long past events, making it real scary at the time the action unfolded. However, A Company, 1/69 Armor was not GM 100 and all but destroyed the 95B Battalion as a fighting force, leaving nearly 300 enemy dead near PK 18 and 19. Indeed, I and many others had done a lot of hard swallowing during those months we worked that AO. The *Stars and Stripes* reporter who was in the area on 10 April asked me if I knew of the French GM destroyed there. That was some real heart-in-throat time for us all... but history did not repeat....

Speed and Power!

JIM WALKER
President
69th Armor Association
LTC, AUS (Ret.)

Why Choose the LAV, When M113s Are Already "On the Shelf"?

Dear Sir:

Roll on!? I find it mind-boggling that the LAV III has been selected to equip the new "medium" brigades (See "Roll On! Army Selects LAV III Variants to Equip New Interim Brigades, Jan-Feb 2001 *ARMOR*. –*Ed.*) While the LAV III family does provide some quite desirable characteristics — such as higher road speed, better fuel economy, and simplified maintenance requirements — it is also notably deficient in some traits that would seem vital to what is supposed to be a "full-spectrum" force.

Perhaps the most glaring deficiency is the relatively poor off-road capability exhibited by armored cars throughout the history of mechanized warfare, and — more importantly — by the LAV III during the evaluation process. A cavalry squadron commander was quoted in *Jane's Defense Weekly* as saying, "We've been surprised with the LAV IIIs where they've got stuck ... We thought it could go anywhere. [But] you've got to be very selective with where it goes." Does that sound like acceptable mobility for full-spectrum operations?

The LAV III Mobile Gun System employs the so-called "Low Profile Turret" developed for the XM8 program, not the conventional turret created for the USMC LAV Assault Gun. The Low Profile Turret (a misnomer, since the profile is actually taller than conventional turrets — "Small Frontal Area Turret" would be a more accurate descriptor) was previously rejected by the Army because half of the vehicle commander's field of view is blocked by the main gun. This design flaw was unacceptable a decade ago — why is it now okay?

At last report, the first brigade is not expected to be fully equipped with LAV IIIs until mid-2003. Had the M113 family been chosen, the medium brigades could have been formed immediately, from the existing inventory, ready to serve without delay. Why adopt an "off-the-shelf" system that will take years to get into service?

It is true that the LAV III offers better ballistic protection than does the M113, but the greatest threat in urban combat is not from 14.5mm machine guns, it is from antiarmor weapons like the RPG-7, which can easily punch through the LAV's applique armor (both LAV III and M113 require bolt-on armor to defeat the RPG threat). Is the LAV's heavier standard armor incurring a substantial weight penalty with minimal practical benefit?

Because the M113 (even with anti-RPG armor attached) weighs less than the standard LAV III, more M113s can be transported by each C-5 or C-17, thereby greatly increasing the ground combat power delivered per aircraft sortie. And isn't the whole idea behind the medium brigade concept to "get there fustest, with the mostest"?

When the Abrams was developed, fuel consumption was sacrificed in order to create the best possible tank for defending against an anticipated Soviet attack through the Fulda Gap. The decision to not use a fuel-efficient diesel engine later resulted in a severe strain on logistics during the large-scale ground offensive of Desert Storm. Today, the LAV III has been selected (at least in part) because it delivers excellent fuel economy, but at the expense of off-road capability. Will this decision also prove to be somewhat shortsighted and costly?

STANLEY C. CRIST
Lancaster, Calif.

Essay on Redefining CSM's Role Relates Best to Maneuver Units

Dear Sir:

CSM Jim DePriest's and COL Randy Anderson's essay, "Redefining the Role of the Command Sergeant Major in a Tactical Environment" in the March-April 2001 issue is a "must read" for mounted maneuver commanders and noncommissioned officers. They have clearly identified a hole in "How-to-Fight" doctrine, and have then recommended a solution. I believe that battalion commanders and their wingmen could use this as a guide to train and fight their formations. The authors' critical sites and leader tasks have been proven by their personal execution at numerous NTC rotations.

The USASMA Sergeants Major Course and the Command Sergeants Major Course are developed for the entire Army, and I believe this essay is only applicable for mounted maneuver outfits. Saying that, I would not recommend training the entire Noncommissioned Officer Corps. I would recommend that division and brigade CSMs use this or something of their own design to train the battalion CSMs until there is an appropriate doctrine developed. Their comments on leader books as a training management tool are a breath of fresh air. We all should reread *FM 25-101.*

JOHN BECK
CSM, U.S. Army

Three-Tank Platoons Raise Control, Deployment Questions

Dear Sir:

I must respond to the article "The Three Tank Platoon, A Consideration For Army XXI." (See March-April 2001 *ARMOR*. –*Ed*.) I must admit, I was trying to be objective when reading the article. The gentlemen who wrote the article make a compelling argument if you are a logistician, but as an Armor officer I find a couple of faults with their article. The first is the argument that armor platoon leaders will have an easier time controlling three tanks as opposed to four. I feel that there was no credible evidence to this argument. I have been a tank platoon leader with four tanks and a scout platoon leader with six Bradley CFVs, and I never had any problems controlling them. A greater problem, as I see it, is over-reliance on the digital suite on the M1A2, which cripples the platoon leaders when it goes down. In my opinion, we seem to be selling short the splendid armor lieutenants that we are producing. I have yet to have the opportunity to command M1A2s, but I do know how to track and control all the tanks I had as a platoon leader.

The next issue I had is deployability. When deploying an M1A2 on a C-5, you can fit only two on the airframe. Hmmm, something tells me that either way you will not have much capability in the event of separation on the airfield. You will have two tanks from one platoon together and the third one landing on the same bird with a tank from another platoon. I smell confusion in consolidation, especially if the airfield is compromised in any way. With the four-tank platoon you have two sections; at least they can defend much easier than two crews that have never functioned together before.

My last point is about the successful implementation of the three-tank platoon by the Swiss Army. When did they go to war with a three-tank platoon? I must have been sleeping during that one. Successful implementation comes from combat experience, not

Continued on Page 46

from training exclusively. To quell any argument, look at the three-tank platoon operations by the Russians in Afghanistan... it was abysmal.

ERIC D. SCHULTZE
CPT, Armor, NYARNG
S1, 1st Battalion, 108th Infantry

Some Additional Information On Israel's "Heavy APCs"

Dear Sir:

As an avid reader of *ARMOR* magazine, I enjoyed the interesting article in the March-April issue, *Deployable Versus Survivable,* by SFC Ira L. Partridge. I agree with most aspects of SFC Partridge's analysis, but as the author of a recent book on IDF tank-based carriers, I do have some disagreements with his description of these heavy APCs. (See *Military Briefs 2. Israeli Tank Based Carriers,* by Marsh Gelbart, Mouse House Enterprises, Woden, Australia. 2000. ISBN 0-9577586-1-8)

I do not believe that the IDF would classify the M113 with reactive armor, known as the Classical, as a heavy APC. Their heavy APCs are all tank-based and fall into three main categories.

- Those APCs based on the Centurion hull, the *Nagmashot, Nagmachon,* and most recently the *Nakpadon.*

These Centurion-based carriers are optimized for use in high threat, counter-insurgency operations in rough terrain. They are not suitable for combined operations, being too slow and unwieldy. In addition, these AFVs do not have adequate provision for infantry to disembark under fire. SFC Partridge's statement that "A modification allows troops to exit from the rear" is misleading. In fact, infantry have to clamber, one by one, out of a rather awkward and narrow hatch, onto the engine decking of the machine's hull and then disembark by jumping to the ground. Although special ballistic side-skirts can be hinged upwards, offering some protection whilst infantry are debussing, they remain terribly vulnerable to artillery airbursts.

- The T-55 tank-based carrier, the *Achzarit*, is designed for combined arms operations. It is intended to function as a heavy assault carrier. Rather than simply being used to "protect and deliver a squad of dismounted infantry to the battlefield" the *Achzarit* is intended to traverse that battlefield. It is capable, thanks to 14 tons of appliqué passive armor added to the baseline protection offered by its hull, of crossing through the fire-zone to deliver its infantry onto an objective. It can accomplish this journey with at least the same chance of survival as a top-of-the-range MBT.

As SFC Partridge points out, the *Achzarit* has a clamshell rear hatch. By virtue of this, infantry can disembark in relative safety when compared to the Centurion-based heavy APCs.

- The Centurion-based Puma combat engineer vehicle was overlooked in the article. Although heavily protected, the Puma is less cumbersome than the other Centurion-based carriers. It is a hybrid design, part combat engineer vehicle, and part kangaroo carrier. According to IDF tactical doctrine, the Puma would be used alongside the *Achzarit* in combined operations.

The enormous efforts the U.S. is making in developing light armored forces suitable for rapid deployment is perfectly understandable. It matches perceived political needs and real logistical constraints. It may prove to be a costly mistake. Even the most advanced LAV can be outfaced by some decrepit T-55 "Warlord Special." Perhaps it is too soon to write off heavy armor and, in particular, heavy APCs for peace enforcement missions. The Israeli (and Russian) development of heavy, survivable, infantry carriers flies in the face of current orthodoxy. Yet is the current orthodoxy a false doctrine? I hope I am wrong, but I can foresee a situation in which Western forces may "fly light, but die early."

MARSH GELBART

Correction

Editor's Note: SFC Ira Partridge's article included an illustration of the Israeli *Achzarit* APC that neglected to credit the photographer, Marsh Gelbart, who holds the copyright on the photo. We apologize for the error. Mr. Gelbart is the author of a recently-published book on heavy Israeli personnel carriers developed from obsolete tanks. This book is currently under review for the magazine's book column.

No Badges Needed for Esprit: Armor-Cav Is Elite Enough

Dear Sir:

In this whole EAB/CAB debate, it seems we're putting the cart before the horse. According to the *Army Officer's Guide,* 48th Edition, the Combat Infantryman's Badge "was created at the behest of Lieutenant General Leslie McNair, CG, Army Ground Forces during World War II. It was created for the formal recognition of the unique dangers and conditions of infantry duty in combat. The contributions made and hardships sustained by the other branches were considered *but were deemed to be sufficiently recognizable by existing awards.*" (p. 569) The Infantry Board at Fort Benning created the Expert Infantry Badge after World War II to establish a criterion of standards that rewarded those who proved they could pass a rigorous qualification test. The award was modeled after the CIB to enhance its prestige. For the past fifty years, the CIB and the EIB have become two of the most prestigious awards to adorn the American soldier's uniform. It seems that we question the wisdom of our forebears by advancing the notion of both a Combat Armor Badge and/or an Expert Armor Badge.

Do we really need an expert qualification or combat recognition badge in the armor and cavalry community? Since the dawn of mounted warfare, military leaders — and the empires they represented — viewed the cavalry forces as their elite troops. The cavalry was (and still is) the most expensive armed ground service to maintain. For this reason, only the best troops and leaders were considered for positions in the cavalry. As a result, the mounted arm has always been imbued with a sense of *élan*. "We are the best. Give us the toughest missions, and we will not let you down." The mission of the cavalry is the toughest in the army. The cavalry covers greater frontages and distances, operates over longer periods of time with little or no rest, providing security for the commander's scheme of maneuver. The reward of having such a mission is sublime. Being a part of the cavalry is its own reward. No other branch, to include the infantry, can claim such distinction. This is why I became an armor officer.

Historically, no one can say that being in the infantry is its own reward. There is no glamour or élan inherent in the world's oldest branch of arms. Therefore, to enhance the prestige of infantry service, the élan has to be created artificially. This is why our infantry brethren are notoriously "badge happy."

After my unit (4-7 Cav, 3AD) was redeployed back to Germany in my younger lieutenant days, we heard the rumors of a CAB being created. Like everyone else, I thought it was a good idea. "Boy...that'll look good on our uniforms!" We were all disappointed when the promise never came to fruition. Over time, it was forgotten. This recent debate has caused me to reflect on the question of why the proposal is being partially revisited. There are good intentions on both sides of the issue. The problem is that we seem to have forgotten why the CIB (and to a lesser extent, the EIB) was created and what it represents to a branch that deserves special recognition. Like Congresswoman Patricia Schroeder, who wanted to award the CIB to female MPs who participated in Panama, we are missing the point. It's not about participation in minor firefights, or about being sucked into the vortex of an intense tank battle. It's about recognizing the burden we place on the infantry grunt, most of whom did not choose to be where they were. The CIB/EIB seeks to (and succeeds in) recognizing the thankless and dirty chore of infantry duty. I tip my Stetson to my infantry brethren. But we do not need their badges or cords. For we have *jined the cavalry*. And that has made all the difference in the world.

The intent of the EAB is noteworthy. Test the skills of tankers and scouts. It is a right and good thing. But the creation of a qualification or a combat recognition badge is completely unnecessary.

ROBERT E. RICKS, III
CPT, Armor
O Troop/3-16 Cav

"World's Champion Tanker" Didn't Want an Armor Badge

Dear Sir:

As seems to happen every time we get a new Chief of Staff, certain parties have recently begun clamoring for an "Armor Badge" similar to the "Combat Infantryman's Badge." It is useful to know how General Creighton Abrams felt about the issue, one he had good credentials for addressing.

Abrams led the 37th Tank Battalion across Europe during the battles of World War II, earning a reputation as one of the Army's top young leaders. Said General George S. Patton: "I'm supposed to be the best tank commander in the Army, but I have one peer — Abe Abrams. He's the world's champion."

Later, serving as Vice Chief of Staff of the Army during one of the periodic efforts on someone's part to get a badge for non-infantrymen, Abrams wrote that "we have not only kept the infantry badge pure but have thwarted every attempt at another badge for other people so that the significance of the infantry badge would continue undiluted." He was not going to change that policy, Abrams said, a stance he continued during his later service as Chief of Staff.

That position was entirely congruent with the original objective of General George C. Marshall in approving a CIB for the infantryman. "I want his role made clear and exalted," said Marshall. That is still a good policy, one that tankers and other soldiers of all arms should support.

LEWIS SORLEY

Editor's Note: Lewis Sorley spent twenty years as an officer in tank and armored cavalry units, and is the author of "Thunderbolt: General Creighton Abrams and the Army of His Times."

Comments on Uniform Items Past and Present

Dear Sir:

My *ARMOR* Magazine is very instrumental in keeping me abreast of the mind-boggling technical advances we are making in my former combat field. It also makes me feel as if I am still "with the program." Although I retired in 1980 after 25 years, I am very active as a 1SG in the South Carolina State Guard... I enjoyed reading the letters regarding the controversy over an Expert Armor Badge and the latest demoralizing decision on berets, and also "Modern German Tank Development" by Rolf Hilmes.

If anyone is counting, chalk up a big yes in favor of the Badge. Since the infantry guys have been sporting their award for years, it's about time that tankers, who draw more fire than those guys in the grass, are authorized to wear something equal in rank and honor. As for the beret... bummer of a decision! It was bad enough to shed the venerable and super sharp ODs, where one could ID a tanker from the gold (earlier green) cap braid, and the fact that we wore our overseas cap on the left. Now we all wear the same generic "bus driver's" AG44 uniform, where no branch esprit is allowed. Now the COS is knocking morale in the head once more by degrading the value of the beret.

In regards to the article on German armor development, I was quite taken back by the way Mr. Hilmes put down the M-47. He makes it sound as if that tank was a poor performer. In my many years working with M-46s, 47s, and 48s, I would have to say that the M-47 was an outstanding tank in regards to maneuverability and dependability. He hit on two major deficiencies in the poor rangefinder system and the high silhouette. The stereo RF was not very good, but the only thing we had at the time. And at 11 ft. high, it did pose a good target. The most devastating deficiency, however, which he did not mention, was the totally absurd, idiotic ammo stowage. There were 11 ready rack rounds and 60 under the turret basket which, in a combat situation, were almost unavailable. A later development did away with the basket and totally revised the ammo system, but the M-47 was then on the way out. Outside of these deficiencies, the M-47 was an extremely maneuverable and dependable tank. The Israelis greatly modified it with the M-60's 105 and fire control, diesel engine, and modified ammo stowage. It was known as the M-47RKM and did exceptionally well against modern Soviet tanks at that time.

Mr. Hilmes really built up the M-48, but failed to compare the original early M-48 with later models. The A2 was still a big, fat awkward boat, but handled like a different tank. The Israelis threw away the M1 TC cupola and installed their Urdan cupola, which I wish we had done. In Vietnam, many M-1 cupolas had a cal .50 pintle welded on so the TC could have a functional machine gun. I disagree with his writing that the 48 surpassed the 47 in dependability and mobility. The 48A1s in Germany had to have racks installed behind the back deck to carry four 55-gal. fuel drums, copied from the Soviets, like the M-48 design was copied from the Soviet JS-3. I doubt that Mr. Hilmes is very familiar with either the M-47 or 48. Reading historical figures and books is not the same as being out there in the mud, ice, and dust, working with the artifact in question.

Thanks for an outstanding publication.

1SG W. CAMPBELL
via email

(Editor's Note: Author Hilmes personal experience as a German tanker goes back to the M-48 days.)

The Fight for Information Persisted Through the Ages

Dear Sir:

I wish to comment on the Commander's Hatch article, "Is Information Superiority All It's Cracked Up to Be?" (March-April 2001 *ARMOR* – Ed.)

Thinking of information superiority as though it is some new 21st century warfighting concept reveals a very shallow understanding of the history of warfare. Of course, information is important. Sun Tzu spelled it out 2,500 years ago. About 1,200 B.C., Odysseus disguised himself in order to enter and collect intel on Troy. The Bible tells us about Moses sending spies into the Promised Land in advance of the main body.

Tank Panel Set for Armor Conference

As part of this year's Armor Conference, there will be an International Tank Panel at Haszard Auditorium, Gaffey Hall, beginning at 1230 on May 22. Experts will make a brief presentation on each of five major main battle tanks, including the Abrams, the British Challenger II, German Leopard 2A5, French LeClerc, and the Russian T-90. Following the presentations, there will be an audience discussion period that will cover future tank requirements in the areas of lethality, survivability, mobility, command and control, and sustainability. The panel and discussion will be unclassified.

The subject matter experts will include LTC Ulf Bartels of Germany, LTC Shaun Wilson of the UK, LTC Martin Klotz speaking on the French LeClerc, COL James H. Nunn on the Abrams, and U.S. LTC John Paulson, who will do the presentation on the Russian T-90.

Sponsoring the event is TSM Abrams, Fort Knox.

Information correlates to security. The better the information the better the security. The problems come with the *accuracy* of the information and *capability* to act on it. Inaccurate reports, failure to detect, misidentification, disorientation, delayed or lost reports, decoys, disinformation, camouflage, counterreconnaissance patrols, and spoiling attacks have hamstrung "information operations" throughout history. And as our technical capabilities improve, so do the enemy's countercapabilities. That's why commanders can never blindly trust their information and must plan contingencies and anticipate surprises and reversals. Likewise, time and distance limit options. If the enemy can redeploy or reinforce faster than you can maneuver and strike, even perfect information helps little other than to suggest aborting the operation. Hence, the timeless need for sequential operations to set the secure base from which simultaneous strikes can be launched.

To suggest that there was an alternative to the "sequential" operations in Tunisia, Sicily, and Italy in WWII ignores real world limitations and the scale of the operation. The Allies could strike in any one of many places, but lacked the assets to launch *and sustain* simultaneous decisive attacks. By comparison, though Ia Drang in Vietnam was a small-scale operation, it plainly demonstrates the risk of trusting information and ignoring sequential operations. The initial airmobile (simultaneous) strike was successful, but was followed by a disastrous ambush due to inadequate security during the return to the landing zone.

Sequential and simultaneous operations are interdependent, not alternatives. Strategic and operational level warfare is sequential, while tactical operations can be simultaneous, and historic examples are countless. The key is to mass overwhelming combat power. The first step in massing is to determine enemy strength. That requires information that is accurate and reliable, and hence the challenge.

So what's new?

CHESTER A. KOJRO
LTC, AR, USAR (Ret.)

"An Infantryman's Thoughts...": A Point-by-Point Critique

Dear Sir:

Consider this letter a "tanker's response" to "An Infantryman's Thoughts on Armor" as appeared in the January-February issue of *ARMOR*. Being personally acquainted with Major Robert Bateman for over 13 years, I never counted myself among his detractors — those individuals he proudly characterizes as "annoyed" readers. On the contrary, I've found the majority of Major Bateman's articles to be interesting and thought-provoking. While I may not have always agreed with some of his assertions, I could not criticize his work on the basis of a flawed or incomplete foundation of facts. In my opinion, his most recent contribution to *ARMOR* completely departs from this sterling record of well-grounded observations.

The "famous triad of armor" cited by Major Bateman is actually "firepower, mobility, and shock effect." The triad is represented by the cannon, the track, and the lighting bolt as seen on the unit patch of the first mechanized brigade at Fort Knox in the late 1930s and the unit patches currently worn by the 1st and 49th Armored Divisions and the U.S. Army Armor Center. In his article, Major Bateman frames his thoughts under the words "armor," "firepower," and "maneuver." His choice of these terms confuses the issue. Having read his remarks carefully, I believe Major Bateman is attempting to address what would more accurately be described as the dynamics of armored fighting vehicles: survivability, lethality, and mobility. Using this terminology for the sake of clarity, several problems with Major Bateman's piece become readily apparent.

1. Survivability. Equating survivability (or "protection" in Major Bateman's words) solely in terms of armor thickness is a long-outdated practice. Survivability of an armored fighting vehicle is more commonly regarded as a synergistic result of several factors. Among these factors are: protection against direct and indirect fire, the ability to destroy the enemy outside the effective range of his weapons system and the capability to quickly reposition one's own system from a position of vulnerability to one which offers the optimal angle of fire. Most professionals who fight from an armored vehicle address survivability in regard to these factors. When Major Bateman asserts that he hears his "armored brethren" speak solely in terms of rolled homogeneous armor when discussing "protection," we can only wonder: who are these anonymous people and how current is their experience in the arena of armored warfare? I know of no tanker or mechanized infantryman who takes such an outmoded and simplistic view of survivability.

According to Major Bateman, our survivability (or "protection" in his parlance) means "jack****" to him "as an infantry soldier." He contends that survivability is "a 'nice to have' that slips in right behind 'mission accomplishment'" and adds that the Armor community should "focus" on the latter. Further on in his article, he states the following: "Without you and your armor, more of my boys will die." How does he reconcile these two statements? An armored vehicle without a crew is useless. A destroyed armored vehicle with a dead crew is equally useless. In light of this, survivability is more than "a nice to have." If Major Bateman is counting on the Armor community to prevent his "boys" from dying, he must recognize that combat-effective vehicles with combat-effective crews must get to the fight. In order to achieve "mission accomplishment," armored vehicles and their crews must survive. Therefore, the dynamic of survivability — in the modern sense of the term — is perhaps an issue that should mean "jack****" to him.

Major Bateman would have us believe that the dynamic of survivability is solely a concern of the Armor community. If he is correct, how does he explain the M2A3 Bradley Fighting Vehicle and "Land Warrior?" Were no improvements made to the Bradley which make the A3 more "survivable" than the A2? Again, let's look at the modern understanding of survivability. The M2A3 Bradley is equipped with second-generation FLIR, allowing it to acquire targets at a greater range than the A2. Does this capability increase not only the lethality, but also the survivability of the A3 Bradley and its crew? If the A3 crew can engage outside the effective range of the enemy's weapons systems, are they better "protected" than before? Of course they are. Is a "more lethal" soldier a better-protected one? If a soldier equipped with the "Land Warrior" suite can observe targets around the corner of a building, this represents an increase in the dynamics of lethality and survivability. As I understand it, both the A3 and the "Land Warrior" do not fall under proponent agencies of the "Armor community." It would appear then, that "other people" besides the "Armor community" are indeed "worrying about Force Protection."

2. Lethality. To a large degree, as has been previously mentioned, the line between the dynamics of survivability and lethality is blurred. A relative advantage gained in one of these dynamics generally results in a residual advantage in the other. On the subject of lethality (addressed in the article as "FIREPOWER"), Major Bateman seems to have a shortsighted view of what armored vehicles can do for him. "Terminal effects" are measured not only in terms of hitting "that fourth floor window," but also in terms of that convoy of trucks carrying dismounts to reinforce that "fourth floor window" and all the other windows around it. If an armored vehicle "can accurately ID and hit" those trucks "at 5 km, or 15 km" outside Major Bateman's city or town, isn't that a greater terminal effect for him and his infantry than the ability to elevate and blast the 4th floor at 250 meters? We need to ensure we're using the right tools for the right job. Have the mortars tackled that building yet? Where are the M203s? Have they been apportioned against that window? These avenues need to be explored and exhausted before bringing *any* armored vehicle in to deal with the problem. Additionally, Major Bateman seems to forget that there are already weapons on certain armored vehicles that can achieve the necessary elevation at the range he cites (i.e., the 25mm on the Bradley).

A final note on lethality. Contrary to Major Bateman's inferences, the current main battle tank of the United States Army can indeed "shoot through walls, or knock down walls or buildings." In the near future, the Armor community will also be fielding a canister round, which, if used correctly, can facilitate the operations of a combined arms team in numerous tactical environments. We can indeed "remodel" a building for you, if that is how you choose to "maximize" our capabilities. No mounted soldier I know "whines" about the use of armor in cities and built-up areas. If anything we may, as thoughtful professionals who are fully aware of the advantages our vehicle brings to the battlefield, question the wisdom of expending such a valuable asset in the pursuit of a "home improvement project."

3. Mobility. In the subsection entitled "MANEUVER," Major Bateman is actually discussing mobility, not maneuver. He talks exclusively about getting from Point A to Point B, mentioning nothing about fires (supporting or otherwise); his use of the operational term "maneuver" is therefore inappropriate. He limits his discussion of mobility to the strategic and operational levels of war and I will do the same. Major Bateman assures us the "either the Navy or the Air Force will take us to the dance." Will they really? Do they have the requisite number of lift aircraft or roll-on/roll-off ships to carry a sizeable force to any dance, anywhere at anytime? Ignoring the subject of heavy armor for a minute, what can they do? How many light armored vehicles can they carry at this exact moment? What size force does that translate into? I purposely used the word "can" and not "could." I'm not interested in what "could" be accomplished, as that generally entails prerequisites that are infeasible (i.e. *if* we used every aircraft in the fleet we *could*....). I want to know what they *can* do right now. I suspect that the answer would cause Major Bateman to be a little less confident in transportation to "the dance." My point is not to cast aspersions on our sister services. I do believe, however, that strategic mobility is not simply the responsibility or purview of the "Armor community." Maybe the Army is not the only service that should explore force structure transformation.

Regarding operational mobility, what threat is Major Bateman's force facing? Heavy, modern, world class armor? Then bridges are not a problem; the enemy must be able to cross them as well. Granted, if he's equipped with former Warsaw Pact equipment, those bridges will require some improvement to accommodate our armor. It should be noted, however, that this was the same problem we faced in Central Europe for years outside of the Federal Republic of Germany during the Cold War. Had a limited counterattack been necessary into the German Democratic Republic back then, we were prepared to reinforce the bridges. Why are we so resistant to this potential necessity now? Obsolete armor? Light armor? Theoretically, defeating such a threat should be within the capabilities of the intermediate force; bridging is not an issue in this scenario.

Major Bateman gives considerable shrift to logistical support for an armored force. Unless someone develops a solar-powered armored fighting vehicle, any mechanized force (tank, Bradley or LAV-equipped) is going to require fuel. That being said, is Major Bateman aware of the various measures currently being implemented by the "Armor community" in order to decrease the length of our logistical tail? One of these initiatives is the Abrams-Crusader Common Engine Program. Through this program, every tank in the fleet will be retrofitted with a new turbine engine. The newer engines have a higher rate of reliability and fuel-efficiency (resulting in reduced CLIX demands and lower fuel consumption rates for a deployed force).

As a final comment on "An Infantryman's Thoughts on Armor," I should like to roundly reject Major Bateman's characterization of the Armor community's response to transformation. As an Armor officer I take exception to his accusation that we, "as a branch," are not supporting transformation "100 percent." He would do well to avoid sweeping generalizations, particularly those pregnant with inferences of recalcitrance (at best) and disloyalty (at worst). I believe that the Armor community has embraced the idea of a force that would bridge the current gap between light and heavy units. Has there been professional discussion and debate on the topic? Absolutely. Most of this discussion revolves around system platforms for the force and is framed in the dynamics of survivability, lethality, and mobility. Is such discussion healthy and appropriate? Absolutely. Among professional soldiers, constructive discourse is always healthy and should not be confused with recalcitrance. I would think, that given his long history of (frequently controversial) literary contributions to the profession, Major Bateman, above all others, would understand the difference.

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Correction

An article in the March-April issue of *ARMOR* ("Armor, Cavalry, and Transformation...") stated that the new Long Range Advanced Scout Surveillance System (LRAS3) could be used to designate targets for laser spot-homing weapons like the Copperhead artillery round and Hellfire missile. This is not correct, as the present version of the LRAS3 does not have this capability.